



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Outgoing
C0070038
#4094
K

August 1, 2012

Dennis Ware
Plateau Mining Corporation
P.O. Box 30
Helper, Utah 84526-0030

Subject: Conditional Approval on Phase II Bond Release of 95.4 Acres of the Willow Creek Permit Area, C/007/0038, Task ID #4094

Dear Mr. Ware:

The Division has completed the review of the above-referenced application which proposes to release Phase II bond on 95.4 acres of the Willow Creek permit through the bond release process. Enclosed you will find our Decision Document and Technical Analysis for this project. We are coordinating our review with the Bureau of Land Management (BLM) and the Office of Surface Mining (OSM). Attached are the concurrence letters from BLM and OSM. No comments were received by the end of the 30-day public comment period. In addition, the Division finds that prior to final bond release approval, the Willow Creek Mining and Reclamation Plan must be updated to reflect the changes agreed to between the Division and the Permittee during the bond release inspection on June 18, 2012. This includes the following:

- The Division requires that the applicant amend the MRP to commit to conduct annual shaft settlement surveys beginning at the approval of Phase II bond release and running through application for Phase III bond release. The Division requests that the data be submitted in such a way as to demonstrate the amount of settlement (or lack thereof) of both shafts over time.
- Before applying for Phase III bond release, the applicant must provide the Division with documentation from the landowner confirming that the shaft safety fences and the shaft bridge are to be left in place, and that these facilities are not to be removed or reclaimed by the operator.

This application is conditionally approved upon receipt of 2 clean copies of the above items prepared for incorporation. Please submit these copies by August 31, 2012. Once the Division receives these copies, final approval will be granted.



Page 2
Dennis Ware
August 1, 2012

A stamped incorporated copy of the approved plans will also be returned to you at that time, for insertion into your copy of the Mining and Reclamation Plan.

If you have any questions, please call me at (801) 538-5325.

Sincerely,

A handwritten signature in cursive script that reads "Daron R. Haddock". The signature is written in dark ink and is positioned above the printed name and title.

Daron R. Haddock
Coal Program Manager

DRH/AAA/sqs
cc: Price Field Office
O:\007038.WIL\WG4094\Conditional Approval Ltr.doc



United States Department of the Interior

OFFICE OF SURFACE MINING
Reclamation and Enforcement
Western Region Office
1999 Broadway, Suite 3320
Denver, CO 80202-3050



JUL 31 2012

John Baza, Director
Department of Natural Resources
Division of Oil, Gas, and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, UT 84114-5801

RE: Phase II Bond Release, Plateau Mining Corporation, Willow Creek Mine, C/007/0038, Task #4094, DOGM Proposed Decision and Findings of Compliance, June 25, 2012

Dear Mr. Baza:

This letter acknowledges the Office of Surface Mining (OSM), Denver Field Division's (DFD) receipt and review of the above Phase II Bond Release Decision Document prepared by the Division of Oil, Gas, and Mining (DOGM) dated July 16, 2012. DFD agrees with the findings and Decision Document and hereby provides OSM concurrence for the above bond release action in accordance with 30 CFR 740.15 (d) (3), and 30 CFR 906.30, Article IX, Section 24, of the State-Federal Cooperative Agreement.

DOGM's Proposed Decision documents the applicant's compliance with the Utah approved regulatory program at Rule R645-301-880.

This Phase II bond release request applies to 95.4 acres, broken down as follows:


- 18.35 acres – Surface Facilities/Conveyor Corridor
- 38.34 acres – Schoolhouse Canyon Preparation Plant, Loadout, and Refuse Pile
- 5.75 acres – Gravel Canyon (the former topsoil pile)
- 32.96 acres – Crandall Canyon area (mine shafts to No. 3 and No. 5 mines)

OSM finds that Plateau Mining Corporation (PMC) has met or exceeded the requirements for Phase II bond release on the 95.4 acres of land described above. DOGM currently holds a performance bond in the amount of \$1,424,514. PMC is requesting a \$935,348 reduction in this bond. DOGM has determined that the remaining bond amount of \$489,166 is sufficient to complete all remaining reclamation obligations at this site if the work had to be completed by a third party contractor. The Bureau of Land Management has concurred with this finding in a letter dated July 26, 2012. OSM also concurs with DOGM's decision.



Thank you and your staff for coordinating this Federal mine bond release action through the DFD. Please direct any questions concerning this action to Daniel MacKinnon, Natural Resources Specialist, at dmackinnon@osmre.gov or (303) 293-5011.

Sincerely,



Kenneth Walker, Chief
Denver Field Division

cc: Daron Haddock, DOGM
Plateau Mining Corporation



C/007/038 Incoming

CC: April
Steve D.

OK #4094



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Green River District, Price Field Office
125 South 600 West
Price, UT 84501

<http://www.blm.gov/ut/st/en/fo/price.html>



JUN 26 2012

RECEIVED

JUN 29 2012

IN REPLY REFER TO:
3474(UTG023)

DIV OF OIL GAS & MINING

Daron Haddock
Utah Division of Oil Gas and Mining
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Subject: Phase II Bond Release Inspection for Reclaimed Areas of the Willow Creek Mine, Crandall Canyon, School House Canyon, Rail Road Load Out Area and Conveyor Corridor.

Dear Mr. Haddock:

Phase II Bond Release Inspection took place on June 18, 2012. Plateau Mining Corporation has completed Phase II of the approved reclamation plan for the areas of Crandall Canyon, School House Canyon, Rail Road Load Out Area and the Conveyor Corridor. The Bureau of Land Management (BLM) concurs with the reclamation that has taken place.

The BLM requests prior to the Phase III Bond Release that a survey and factual movement of the Crandall Canyon Shaft be completed and report provided. The BLM also requests that the fencing around both shafts be left in place perpetually.

If you have any questions concerning this matter, please contact Sue Wiler at (435) 636-3651.

Sincerely,

Patricia A. Clabrough
Patricia A. Clabrough
Field Manager

cc: Roger Bankert (UT-923)

State of Utah



Coal Regulatory Program

Willow Creek Mine
Plateau Mining Company
Technical Analysis
Phase II Bond Release, 95.4-Acres, Task ID #4094
July 2, 2012

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RECLAMATION PLAN

Plateau Mining Corporation, the Permittee, has met the minimum requirements of the Utah Coal Mining Rules for Phase II bond release. The Division should approve a Phase II bond release for the portion of the bond as requested by the Permittee.

GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

Analysis:

The application package contains a summary of the reclamation history of the permit area, a vegetation monitoring study done in 2008, sediment yield calculations performed for all areas included in the Phase II application, a public notice, landowner and government agency notification letter including the Section, Township and Ranges locations of the areas included in the Phase II application, a bond reduction calculation worksheet, and drawings of each of the areas included in the Phase II application. A bond release inspection with both DOGM and Bureau of Land Management personnel took place on June 18, 2012.

UDOGM Bond Release Directive Tech-006 and Utah Rules R645-301-880.100-800 provided guidance for the bond release review.

Findings:

The information provided is adequate to meet the minimum regulatory requirements for this section.

PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES

Regulatory Reference: 30 CFR Sec. 817.97; R645-301-333, -301-342, -301-358.

Analysis:

RECLAMATION PLAN

The post mining land use for the areas included in the phase II bond release application is wildlife, grazing and recreational usage.

Findings:

The information in the application is adequate to meet the requirements of this section of the regulations.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

Analysis:

Redistribution

The requirements for Phase II bond release are outlined in R645-301-880.320, they include vegetation establishment, sediment control and prime farmland soil productivity. There are no prime farmlands present within the Willow Creek permit area.

As built maps found in Attachment 7 of Ex. 24 outline the areas that are under review for Phase II bond release and those that received Phase III bond release for an industrial post mining use.

Earthwork (including seeding) at the Willow Creek site was completed in the fall of 2004. Reclamation as-built topography is shown on Maps 21 A – AB through 21 G – AB and associated cross-sections on Map 22A-AB of Ex. 23. A total of 193,067 yd³ was moved to reclaim the overland conveyor and a total of 591,286 yd³ was moved to reclaim the main mine highwall (Attach. 3, Ex. 23).

Soil replacement is described in Sec. 5.2.2.2 of Ex. 23. Soils from the adjacent grass and sagebrush covered slope were used for final cover over the long and short tunnels. The Willow Creek Mine topsoil stockpile was utilized in reclamation of the main mine facilities high wall. Analysis of the stockpiled soil and adjacent undisturbed areas are found in Sec. 4.2.2.2 of the MRP.

Findings:

The information provided meets the requirements for Phase II bond release.

RECLAMATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

The Permittee provided sediment yield calculations for each of the respective areas applied for in the Phase II application. The report was prepared by Earth Fax Engineering using the universal soil loss equation (RUSLE) using both the pre-disturbance and post-reclamation scenarios. The factors take into account rainfall runoff, soil erodibility, length of slope, cover management, and support practice.

In each of these areas, sediment yields were calculated to be less under the post-reclamation scenario than the pre-mining disturbance scenario. This is due to the reclamation earthwork completed, such as pocking have provided for better erosion control then how the land would behave if it were still under non-disturbed conditions.

Findings:

The information provided in the Earth Fax Engineering study provides further evidence that suspended solids sediments are not contributing pollution to receiving drainages. All hydrologic reclamation work completed to date appears to be within the guidelines of Phase II Bond Release criteria.

REVEGETATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

A four year comprehensive vegetative survey was completed in 2008 in preparation for phase II bond release, (Attachment 1). Table 1 of the attachment illustrates a summary of the vegetation sample areas, protocols, methods and sample sizes for the reclaimed, reference and riparian bottomlands areas. Depending on the reclaimed area and the protocol employed to determine revegetation success standards, (Baseline or Reference Area Methods), the following parameters were compared: total living cover, woody species density and annual biomass productivity. The results of the data collected indicated that in all cases the reclaimed areas either met or exceeded those of the success standards. The site visit also verified the presence of the majority of species listed in the seed mix for reclamation.

RECLAMATION PLAN

Findings:

The information in the application is adequate to meet the requirements of this section of the regulations.

STABILIZATION OF SURFACE AREAS

Regulatory Reference: 30 CFR Sec. 817.95; R645-301-244.

Analysis:

Reclamation treatments are indicated on the maps in Attachment 7 of Ex. 24. They were also shown on Map 21 G-AB in Ex. 23. The regraded site was covered with hay (2 tons/ac.) that was gouged into the surface before seeding. The hydroseeding operation was followed by a surface application of 1.5 ton/ac hay mulch and 500 lbs/ac tackifier. Locations of the gouging and seeding treatments are shown on Ex. 3.4-17AB.

Sediment yield calculations in Attachment 2 of Ex. 24 estimate less tons of sediment/acre/year post-mining for each reclamation site. This stability is mostly due to surface roughening which effectively shortens the slope from 400 ft. to 3 ft. and the application of surface mulch at 2 Tons/ac.

In all the RUSLE evaluations, the soil erodibility factor, K, was assumed to be equivalent to the surface soils in existence pre-disturbance and equivalent to the subsurface soils (higher value) for the reclaimed soils. The difference in the soil erodibility factor is applicable in the preparation plant area, but topsoil was re-applied in the Gravel Canyon, Willow Creek Surface Facilities and Refuse Pile areas. So that the information presented does not represent the difference in sediment yield precisely. There is no doubt, however, that the application of 2Tons/ac mulch as a cover management factor and surface roughening as a support practice both lessen the yield of sediment from the reclaimed sites.

Findings:

The Permittee has adequately applied best management practices to control erosion and prevent sediments from leaving the site. Phase II bond release is recommended pending site inspections.

RECLAMATION PLAN

BACKFILLING, GRADING, AND APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, 301-537, -301-542, 301-552, -301-553, -301-731, -301-732, -301-733, -301-764.

Analysis:

Following the permanent cessation of operations in 2001, Plateau Mining Corporation began the reclamation of the Willow Creek Mine. By the fall of 2004 all demolition, earthwork, drainage construction and final seeding was completed on all but 1.17 acres referred to as the Load-out. In 2005 the demolition of the Load-out was completed and the area was reshaped and seeded in the spring of 2006.

During a bond release inspection held on June 19, 2012, Division staff observed that the areas in application for Phase II release have been backfilled, re-graded and restored to approximate original contour (AOC).

Findings:

Contents and information provided are sufficient enough to meet the minimum requirements of this section of the Utah Coal Mining Rules.

SUPPORT FACILITIES AND UTILITY INSTALLATIONS

Regulatory Reference: 30 CFR Sec. 784.30, 817.180, 817.181; R645-301-526.

Analysis:

There are currently safety fences in place around the shaft areas that have not been removed or reclaimed. Also, there is a shaft bridge within the permit area that was not removed. The operator has expressed that the fences and shaft bridge will be left in place at the request of the landowner.

Findings:

Contents and information provided are sufficient enough to meet the minimum requirements of this section of the Utah Coal Mining Rules. Before applying for Phase III bond release, the applicant must provide the Division with documentation from the landowner confirming that the shaft safety fences and the shaft bridge are to be left in place, and that these facilities are not to be removed or reclaimed by the operator.

MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

Analysis:

There are two backfilled shafts on the reclaimed site that were previously used for mine access. The shafts were both backfilled during initial reclamation in 2001-2002. The western most shaft experienced settlement and was re-filled and repaired in 2005. In 2007 the eastern most shaft experience significant settlement and was repaired and re-filled. Currently, both shafts are completely backfilled with additional volumes mounded on top of the shaft. Monitoring monuments are in-place to allow the operator to monitor for any additional settling. The shafts have been stable since they were last backfilled.

The application did not include annual monitoring data for shaft settlement. The Division requires that the applicant conduct annual shaft settlement surveys beginning at the approval of Phase II bond release and running through application for Phase III bond release. The Division requests that the data be submitted in such a way as to demonstrate the amount of settlement (or lack thereof) of both shafts over time.

Findings:

Contents and information provided are sufficient enough to meet the minimum requirements of this section of the Utah Coal Mining Rules.

BONDING AND INSURANCE

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

A performance bond in the amount of \$1,424,514 is currently held by the Division to ensure that reclamation is accomplished. The application is requesting that with approval of Phase II, the bond will be reduced to \$489,166. The bond reduction calculations were included in attachment 6 of the application.

The current Willow Creek Mine Permit bond calculation worksheets can be found in the Willow Creek MRP in Volume 9, Exhibit 17. A copy of the summary page related to revegetation was included with the application. The bond calculations in Exhibit 17 were updated and incorporated into the permit in December of 2001 and are in 2001 dollars. Exhibit 17 shows the cost to re-vegetate which includes the cost of pocking. The costs used to calculate

RECLAMATION PLAN

the amount of bond to be held by the Division after phase II bond release include all the direct revegetation cost from Exhibit 17 (except for the pocking cost) including a 25% reseeding rate, indirect cost which total 26.8% and escalation costs from 2001 dollars to 2012 dollars.

The cost to re-vegetate has been calculated to be from \$8,385/acre to \$8,447. The provided bond release calculation worksheet provides the details of the reseeding cost per acre calculation. Over time certain acres within the Disturbed Area Boundary (DAB) were removed from the permit as part of a change in the post mining land use to industrial, so acreages are currently accurate. Attachment #7 of the application included a detailed map of the acres remaining in the DAB and the acres actual disturbed and reclaimed and revegetated within the DAB. Utilizing the cost to re-vegetate per acre multiplied by the applicable acres in the permit, the bond amount after phase II release is calculated to be \$489,166. The current bond amount is \$1,424,514. Therefore the amount of bond release is calculated to be \$935,348. The application included a detailed and complete bond calculation worksheet as well as line-itemed unit costs for bond reduction estimation.

Findings:

Contents and information provided are sufficient enough to meet the minimum requirements of this section of the Utah Coal Mining Rules. The Division agrees with the provided calculations and that approves the reduction of the bond from \$1,424,514 to \$489,166. The total approved reduction for Phase II release should be \$935,348.



GARY R. HERBERT
Governor

GREG BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Inspection Report

Permit Number:	C0070038
Inspection Type:	BOND RELEASE
Inspection Date:	Monday, June 18, 2012
Start Date/Time:	6/18/2012 11:30:00 AM
End Date/Time:	6/18/2012 2:30:00 PM
Last Inspection:	

Inspector: April Abate

Weather: Sunny, Hot 90F

InspectionID Report Number: 3132

Accepted by: dhaddock
6/26/2012

Representatives Present During the Inspection:

Federal	Steve Rigby
Federal	Steve Falk
OGM	Joe Helfrich
OGM	Priscilla Burton
OGM	April Abate
OGM	Daron Haddock
OGM	James Owen
Company	Dennis Ware

Permitee: **PLATEAU MINING CORP**

Operator: **PLATEAU MINING CORP**

Site: **WILLOW CREEK MINE**

Address: **PO BOX 30, HELPER UT 84526-0030**

County: **CARBON**

Permit Type: **PERMANENT COAL PROGRAM**

Permit Status: **ACTIVE**

Current Acreages

14,662.49	Total Permitted
95.40	Total Disturbed
186.68	Phase I
92.45	Phase II
92.45	Phase III

Mineral Ownership

- ☒ Federal
- ☐ State
- ☐ County
- ☒ Fee
- ☒ Other

Types of Operations

- ☒ Underground
- ☐ Surface
- ☒ Loadout
- ☐ Processing
- ☐ Reprocessing

Report summary and status for pending enforcement actions, permit conditions, Division Orders, and amendments:

Phase II Bond Release on Crandall Canyon, Gravel Canyon, Schoolhouse Canyon, and former surface facilities area - totalling 95 acres. Representatives from BLM and DOGM were present for the inspection. Sue Weiler and Vaughn Hughes from BLM were also in attendance.

Inspector's Signature:

April Abate

April Abate,

Inspector ID Number: 60

Digitally signed by April Abate
DN: cn=April Abate, o=Division of Oil, Gas,
& Mining, ou=Coal Regulatory Program,
email=aprilabate@utah.gov, c=US
Date: 2012.07.02 13:00:07 -06'00'

Date

Tuesday, June 19, 2012



Note: This is a permit report, not a bond release. The bond release is a separate document. The permit is for the permanent coal program of the Division of Oil, Gas and Mining.
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • www.ogm.utah.gov

Permit Number: C0070038
 Inspection Type: BOND RELEASE
 Inspection Date: Monday, June 18, 2012

Inspection Continuation Sheet

Page 2 of 3

REVIEW OF PERMIT, PERFORMANCE STANDARDS PERMIT CONDITION REQUIREMENTS

1. Substantiate the elements on this inspection by checking the appropriate performance standard.
 - a. For COMPLETE inspections provide narrative justification for any elements not fully inspected unless element is not appropriate to the site, in which case check Not Applicable.
 - b. For PARTIAL inspections check only the elements evaluated.
2. Document any noncompliance situation by reference the NOV issued at the appropriate performance standard listed below.
3. Reference any narratives written in conjunction with this inspection at the appropriate performance standard listed below.
4. Provide a brief status report for all pending enforcement actions, permit conditions, Division Orders, and amendments.

	Evaluated	Not Applicable	Comment	Enforcement
1. Permits, Change, Transfer, Renewal, Sale	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Signs and Markers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Topsoil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.a Hydrologic Balance: Diversions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.b Hydrologic Balance: Sediment Ponds and Impoundments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.c Hydrologic Balance: Other Sediment Control Measures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.d Hydrologic Balance: Water Monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.e Hydrologic Balance: Effluent Limitations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Explosives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Disposal of Excess Spoil, Fills, Benches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Coal Mine Waste, Refuse Piles, Impoundments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Noncoal Waste	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Protection of Fish, Wildlife and Related Environmental Issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Slides and Other Damage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Contemporaneous Reclamation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Backfilling And Grading	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. Revegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14. Subsidence Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15. Cessation of Operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.a Roads: Construction, Maintenance, Surfacing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.b Roads: Drainage Controls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Other Transportation Facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Support Facilities, Utility Installations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. AVS Check	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Air Quality Permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Bonding and Insurance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.a Hydrologic Balance: Diversions

Crandall Canyon was inspected to evaluate whether or not the reclamation work is contributing any suspended solids to streamflow outside the permit area. The channel has two water monitoring locations but has a long history of being dry. There is no concern that the reclamation work is contributing suspended solids to stream flow in Crandall Canyon. Other areas visited during the inspection did not have any evidence of flowing water. The area where the former conveyor system was located was adjacent to Willow Creek, a tributary of the Price River. However, this area was buffered by a large berm and was not contributing any suspended solids to the stream. Fish were observed in the creek. Based on the observations made during this inspection and an examination of the historical water monitoring data, there is no indication that there is any evidence of pollution of surface waters occurring as a result of this reclamation work.

7. Coal Mine Waste, Refuse Piles, Impoundments

We hiked to the top of the Schoolhouse Canyon refuse pile. This site is well vegetated and appears to be stable. All of the refuse pile appears to have adequate cover with no signs of any refuse being exposed.

12. Backfilling And Grading

The operator agreed to yearly monitoring of the backfilling of the shafts in Crandall Canyon in order to determine if any further settling is occurring. The shaft will be surveyed yearly and summarized in the annual report.

13. Revegetation

The vegetation on all of the areas that were visited seems to be doing well, even in this extremely dry spring. There were no areas that would require reseeding and the vegetation seems to be adequate to control erosion as there is no evidence of any significant erosion.

14. Subsidence Control

The site appears to be stable. The BLM expresses some concern about the Crandall Canyon shafts. Even though there was no indication that the shafts were settling any more, the BLM asked that they be surveyed to verify that there is no movement in the fill materials. It is recommended that the shafts be surveyed on an annual basis to verify that there is no movement in the fill.



Figure - 1 Crandall Canyon - Fenced Backfilled Mine Shaft Area in Background



Figure - 2. Close up view of backfilled mine shaft. No indications of settlement such as cracks were noted.



Figure - 3. Second shaft area further up Crandall Canyon (west of first shaft). No indications of settling were noted.



Figure - 4 Gravel Canyon Topsoil Pile



Figure - 5 Gravel Canyon Topsoil Pile 2.

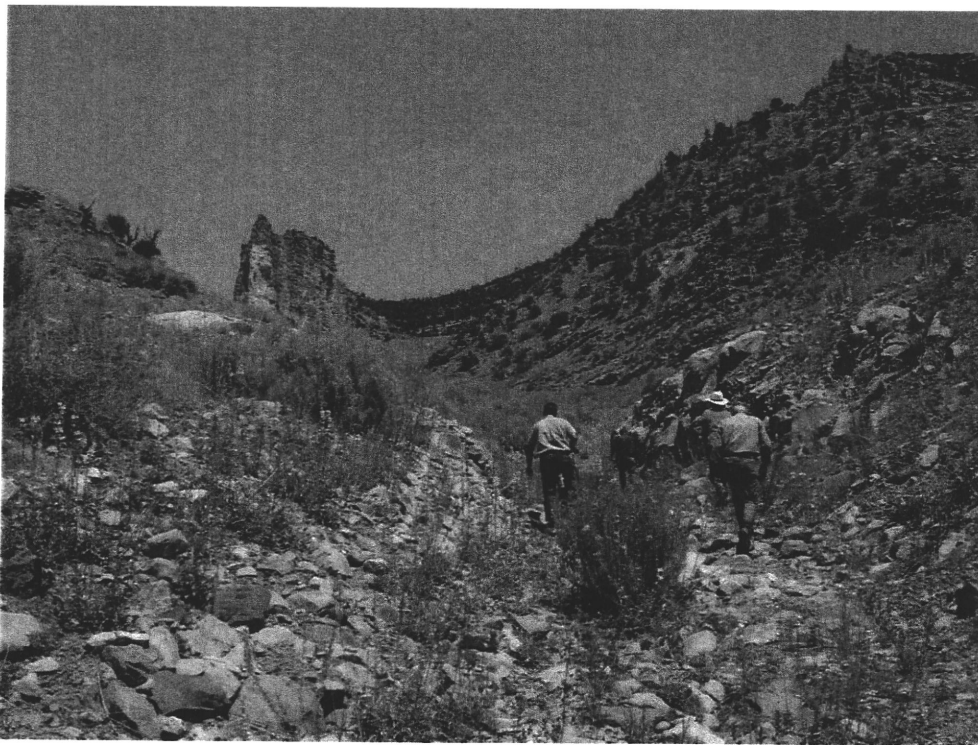


Figure - 6 Hike up Schoolhouse Canyon Refuse Pile Area.

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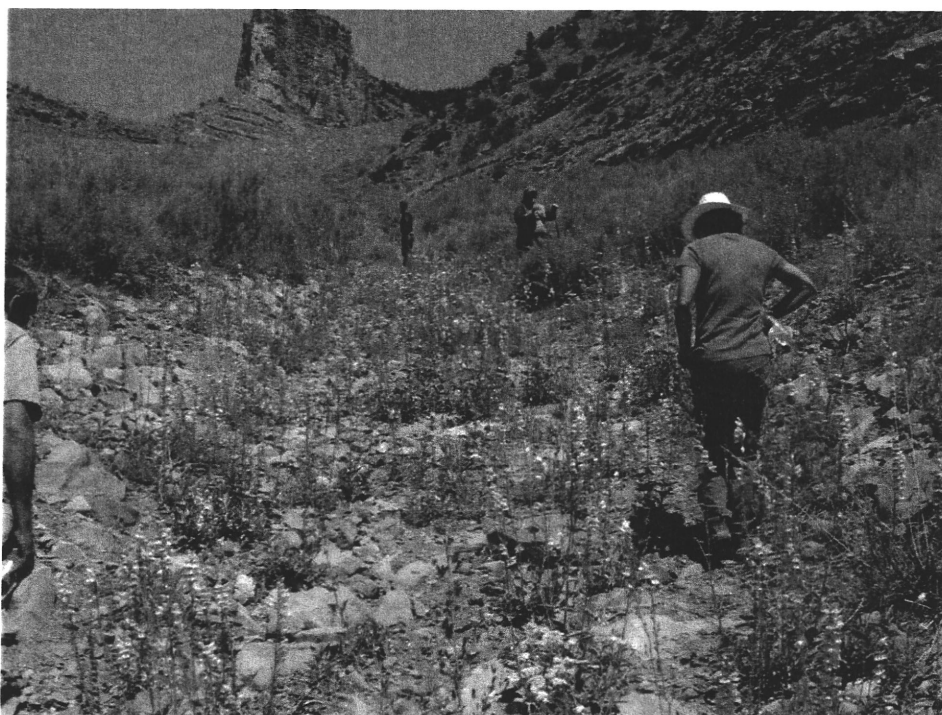


Figure 7 - School House Canyon Refuse Area 2



Figure 8 - Willow Creek Former Conveyor System Area